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Instructions for use

# ONE NEW AND TWO UNRECORDED SPECIES OF *APHIDIDAE* FROM JAPAN

By

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(With one Textfigure)

In the following pages are added one new and two unrecorded species of *Aphididae* to the insect-fauna of Japan.

The writer expresses his sincere thanks to Dr. K. ISHIHARA, director of the Hokkaido Forestry Experimental Station, for his kindness in supervising these investigations. Grateful thanks are also due to Dr. T. UCHIDA, Dr. S. KUWAYAMA, and Dr. C. WATANABE for their kindness in reading through this manuscript.

## 1. *Cinara nopporoensis* n. sp.

Wingless viviparous female (Apterous virgogenia)

Head and thorax pale reddish brown. Abdomen pale reddish yellow to dull yellow with a reddish tinge. Venter pale brownish gray, due to white wax. Eyes black. Antennae pale yellow, the distal ends of the third and fourth joints and the fifth dark. Legs pale yellow; femora at the distal end brown; tibiae and tarsi fuscous. Cornicles brown with a reddish tinge. Cauda and anal plate yellowish brown. Rostrum pale yellow, the apex darkened. Body oval with many long bristles; head and thorax more or less covered with white wax. Two longitudinal series of dark brown spots placed on each side of the dorsum of the abdomen. Head divided, with many long hairs. Eyes with ocular tubercles. Antennae comparatively short, with many long fine bristles; third joint sometimes with one small sensorium near the apex; the fourth near the apex with one rather small sensorium which is sometimes obsolete; the fifth with one medium-sized circular sensorium below the large apical one; the sixth with a large sensorium which is surrounded by much smaller ones; the relative length of the joints as follows: I+II-41, III-81, IV-33, V-42, VI-41 (32+9).

Rostrum reaches well past the third coxae, hairy, acuminate. Cornicles small, hairy. Cauda very short, rounded, much wider than long, with many

stout long bristles. Anal plate larger than the cauda, broadly rounded, furnished with many long stout bristles. Legs moderately long and rather thick, with many long fine hairs.

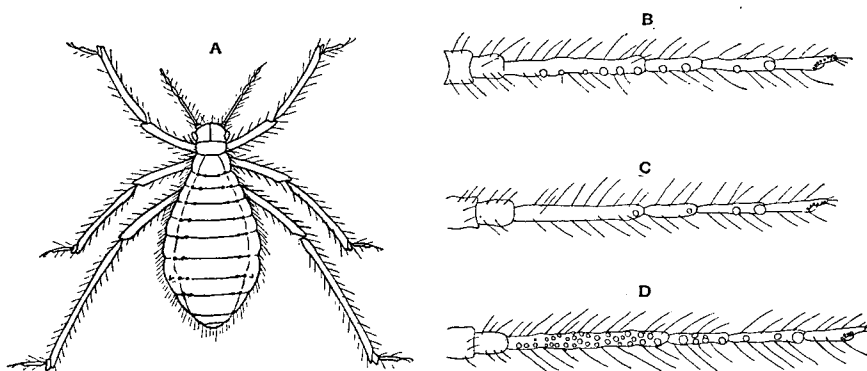


Fig. 1

*Cinara nopporoensis* n. sp.

A. Wingless viviparous female; B. Antenna of winged viviparous female;  
C. Antenna of wingless female; D. Antenna of winged male.

Measurements in millimeters

Length of body .....	3.82
Width of body .....	2.20
Antennae .....	1.04
Femora: fore .....	0.79
middle .....	0.74
hind .....	1.06
Tibiae: fore .....	0.95
middle .....	1.00
hind .....	1.44
Tarsi: fore .....	0.33
middle .....	0.34
hind .....	0.40

Described from 19 examples collected on the 18th of June, 1936, at Nopporo.

**Winged viviparous female (Alate virgogenia)**

Head and thorax vandyke brown. Abdomen pale brownish yellow. Antennae pale yellow, the third joint at the distal end and the last three joints brown

to dark brown. Legs dark brown; femora at the base pale yellow. Eyes black. Rostrum pale yellow, the apical half darkened. Cornicles brown. Cauda and anal plate yellowish brown to brown.

Body oblong, with many long bristles. Body slightly covered with grayish white wax, especially at the venter of head and thorax heavily covered. Head divided, with many moderately long hairs. Eyes with ocular tubercles. Antennae short, with many long fine bristles; third joint provided with 4 to 7 medium-sized or rather large circular sensoria, which are arranged in a row over the whole length except at the base; the fourth with 1 to 3 medium-sized or rather small circular sensoria; the fifth with a large primary sensorium, a medium sized one and sometimes with a small circular one; the sixth with a large sensorium which is surrounded by much smaller ones, some of which are visible at the apex; the relative length of the joints as follows: I+II-36, III-88, IV-33, V-45, VI-40 (31+9).

Rostrum reaches well past the third coxae, acuminate, hairy. Cornicles small and hairy. Cauda short, rounded, wider than long, the anal plate larger than the cauda, broadly rounded, with many long stout bristles. Legs moderately long, with many long bristles.

Wings hyaline; stigma dark gray, with a yellowish tinge; veins dark yellow; radial sector straight or scarcely curved; the third oblique faintly indicated, twice forked; hind wings with two obliques.

#### Measurements in millimeters

Length of body .....	3.23
Width of body .....	1.45
Antennae .....	1.06
Length of fore wing .....	3.80
Width of fore wing .....	1.29
Length of hind wing .....	2.49
Width of hind wing .....	0.80
Femora: fore .....	0.83
middle .....	0.74
hind .....	1.13
Tibiae: fore .....	1.02
middle .....	0.99
hind .....	1.56
Tarsi: fore .....	0.32
middle .....	0.33

hind ..... 0.39

Described from 5 examples collected on the 18th of June and 20 examples collected on the 1st of July, 1936, at Nopporo.

#### Oviparous female

Head and thorax pale brown, with a reddish tinge. Abdomen pale brownish yellow or dull yellow, with a reddish tinge. Eyes black. Cornicles brown, with a reddish tinge. Antennae pale yellow, the third to fifth joints at the distal end and the sixth dark. Rostrum pale yellow, the apex darkened. Legs pale brown; femora at the distal end, and fore and middle tibiae darkened; hind tibiae and all tarsi black.

The structure is practically as in the wingless viviparous female. Body covered with white wax, especially the last two or three segments of the abdomen being heavily covered. Antennae short, the third joint provided near the apex with one small circular sensorium which is sometimes obsolete; the fourth with one medium-sized or rather small circular sensorium near the apex; the fifth with one medium-sized circular sensorium below the large apical one; the six with a large circular sensorium which is surrounded by much smaller ones; the relative length of the joints as follows: I+II-36, III-72, IV-27, V-38, VI-37 (29+8).

#### Measurements in millimeters

Length of body .....	2.98
Width of body .....	1.60
Antennae .....	0.92
Femora: fore .....	0.75
middle .....	0.74
hind .....	1.01
Tibiae: fore .....	0.88
middle .....	0.91
hind .....	1.41
Tarsi: fore .....	0.29
middle .....	0.30
hind .....	0.36

Described from many examples collected on the 21st of September, 1936, at Nopporo.

**Alate male**

Head and thorax dark brown. Venter of the head and thorax dark gray, due to grayish white wax. Abdomen dark green. Antennae dark, the basal half of the third joint pale. Eyes black. Rostrum pale, the apex darkened. Cauda and anal plate dark. Penis dark brown.

Body oblong. Antennae rather longer than those of the winged viviparous female; third joint with 26 to 38 medium-sized or rather small circular secondary sensoria over the whole length; the fourth with 6 to 11 medium-sized or rather small circular sensoria; the fifth with 1 to 4 medium-sized circular sensoria below the large apical one; the sixth with a large sensorium which is surrounded by much smaller ones; the relative length of the joints as follows: I+II-37, III-100, IV-38, V-44, VI-39 (31+8).

## Measurements in millimeters

Length of body .....	2.43
Width of body .....	0.93
Antennae .....	1.13
Length of fore wing .....	3.15
Width of fore wing .....	1.32
Length of hind wing .....	1.97
Width of hind wing .....	0.61
Femora: fore .....	0.73
middle .....	0.55
hind .....	0.92
Tibiae: fore .....	0.89
middle .....	0.86
hind .....	1.28
Tarsi: fore .....	0.27
middle .....	0.29
hind .....	0.32

Described from many examples collected on the 21st of September, 1936, at Nopporo.

**Host**—*Picea Glehni* MASTERS

This species attacks the twig and the young shoot of the host-plant.

**Type locality**—Hokkaido (Nopporo).

Types in the Entomological Institute of the Hokkaido Imperial University and in the Hokkaido Forestry Experimental Station.

Nom. Jap.: *Ezo-ameiro-ô-abura*.

**Notes**—This species differs from *Cinara pinicola* KALTENBACH by the third antennal joint of the winged viviparous female possessing 4 to 7 sensoria and by the relative length of the antennal joints of the winged and wingless viviparous females. It is also distinguished from *Cinara pinihabitans* MORDWILKO by the relative length of the antennal joints of the winged viviparous female. It is also related to *Cinara ezoana* INOUE, but is easily distinguished from the latter by the relative length of the antennal joints of the winged and wingless viviparous females and by the fact that the male of this species is winged.

## 2. *Cinara vanduzeei* SWAIN

*Aphis piceae* WALKER, Ann. Mag. Nat. Hist., II, ser. 2, p. 95 (1848) (non PANZER).

*Lachnus piceae* VAN DER GOOT, Beit. z. Kennt. Holl. Blattläus, p. 401 (1915).

*Lachnus vanduzeei* SWAIN, Univ. Calif. Publ. Ent., Vol. 3, p. 50 (1919).

*Panimerus vanduzeei* THEOBALD, Plant Lice Gr. Brit., III, p. 154 (1929).

*Cinara vanduzeei* BÖRNER et SCHILDER, SORAUER's Handb. d. Pflanz.-krankh., V (4 Aufl.), p. 570 (1932).

**Hosts**—*Picea jezoensis* CARR., *Picea excelsa* LINK., and *Picea canadensis* BRITT.

This species attacks the stem and branch of the above listed hosts.

**Habitat**—Hokkaido (Nopporo).

Many examples of the wingless and winged viviparous females were collected on the 8th of June and the 2nd of July, 1936, and many examples of the oviparous female and of the male were collected on the 10th of October, 1936, at Nopporo.

Gen. Distr.: Europe and Japan.

Nom. Jap.: *Kuro-ô-abura*.

## 3. *Lachniella costata* ZETTERSTEDT

*Aphis costata* ZETTERSTEDT, Fn. Ins. Lapp., I., 559 (1828).

*Lachnus costatus* THEOBALD, Plant Lice Gr. Brit., III, p. 157 (1929).

*Lachniella costata* BÖRNER et SCHILDER, SORAUER's Handb. d. Pflanz.-krankh., V (4 Aufl.) p. 571 (1932).

**Host**—*Picea canadensis* BRITT.

This species attacks the twig and branch of the host.

**Habitat**—Hokkaido (Nopporo).

Two examples of the wingless viviparous female were collected on the 6th of June, and ten examples of the same female on the 22nd of June, 1936. Five examples of the winged viviparous female were captured on the 18th of June, 1936, at Nopporo.

Gen. Distr.: Europe and Japan.

Nom. Jap.: *Konafuki-tobiuro ô-abura*.